

DUAL MODE PLASMA ARC TORCH

ABSTRACT OF THE DISCLOSURE

A dual mode plasma arc torch is provided that preferably comprises a start cartridge disposed between an electrode and a tip. In one form, the start cartridge comprises an initiator that is in electrical contact with the electrode and that is resiliently biased into contact with the tip, such that when the plasma arc torch is in a contact start mode, the initiator is movable against the resilient bias to separate from the tip and establish a pilot arc between the initiator and the tip. Further, when the plasma arc torch is in a high frequency start mode, the start cartridge spaces the tip from the electrode such that a pilot arc is established between the electrode and the tip. In other forms, a contact start torch is provided that is operable under high frequency, and conversely, a high frequency start torch is provided that is operable under low voltage.